

AMENDMENTS TO CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A flash unit control circuit for a camera, comprising:

a power supply;

a flash unit capacitor;

a voltage converter connected between the power supply and the flash unit capacitor and arranged to supply charging current from the power supply to the flash unit capacitor;

a square-wave oscillator connected to the voltage converter for continuously generating a square wave, and having a control signal input that causes connection of the square-wave oscillator to the voltage converter;

wherein when a micro control unit (MCU) of the camera sends a flash unit-enabling signal to the control signal input of the square-wave oscillator[[],]:

a. the square wave oscillator is connected to and supplies a square wave signal to the voltage converter, and

b. said voltage converter supplies an intermittent charging current from the power supply to the flash unit capacitor in response to said supply of said square wave signal, and thereby charges the flash unit capacitor.

2. (Currently Amended) The flash unit control circuit as claimed in claim 1, wherein the voltage converter further has a first transistor, which is controlled said square-wave oscillator is connected to a control electrode of the first transistor to cause said first transistor to intermittently supply said current from said power supply to said flash unit capacitor according to “ON” and “OFF” states of the square wave signal.

3. (Currently Amended) The flash unit control circuit as claimed in claim 1, further comprising a charge-enabling control circuit that ~~further processes supplies~~ the flash unit-enabling signal to the square-wave oscillator to initiate generation of said square wave signal.

4. (Original) The flash unit control circuit as claimed in claim 1, wherein the power supply is a battery.

5. (Currently Amended) The flash unit control circuit as claimed in claim 1, wherein the voltage converter further has a current control circuit being able to receive a current control signal sent by the MCU, and to regulate the amount of the charging ~~current, wherein the current control signal represents in response to detection of a voltage condition of the power supply battery, wherein the amount of charging current is high when a voltage on the battery is high to enable rapid charging, and wherein the amount of charging current is decreased when the voltage on the battery is low to extend a life of said battery.~~

6. (Original) The flash unit control circuit as claimed in claim 5, wherein the current control circuit further has a second transistor, which regulates the amount of the charging current according to the current control signal.

7. (Original) The flash unit control circuit as claimed in claim 2, wherein the voltage converter further has a current control circuit arranged to receive a current control signal sent by the MCU; and wherein the current control circuit further has a second transistor, which regulates the amount of the charging current according to the current control signal.

8. (New) The flash unit control circuit as claim 1, wherein the voltage converter includes a transformer having a secondary winding connected to the flash unit capacitor and a primary winding connected to a transistor, said transistor being connected between the power supply

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and the primary winding of the transformed, and said square-wave signal being supplied to a control electrode of said transistor.